and magnesium carbonates in solution, with frequent storm waters sweeping in sands from the adjacent land, and likely a climate of some aridity. That is, there must have been a land barrier to the eastward separating the basin from the Atlantic, and another to the westward shutting it off from the interior . sea, with a considerable Adirondack island in the midst of the sea, on whose slopes the different beds of the formation over- lapped as subsidence progressed. The whole subject is beset with difficulty and needs thorough investigation, something that it has not yet received.

Because of the greater thickness of the formation in the Cham- plain valley, and because the upper marine limestones occur only there and on the north, it is reasonable to suppose that the subsidence here opened a northeasterly connection with the sea, whence the marine forms entered the basin. Likely at about the same time subsidence ceased on the south and west and was not improbably replaced by uplift, raising the region above sea level and preventing the deposit of the marine limestones there. Such an uplift certainly occurred shortly after, and may well have begun then.

As a result of the Beekmantown subsidence and deposit, the land area of the Adirondacks was much diminished in size; though there still remained an area, mainly on the south and west, which was not submerged. Then came the uplift, which much increased the extent of this land to the south and west.

Chazy formation. In the Champlain valley the Beekmantown formation is overlain by a considerable thickness of mostly quite pure, marine limestone beds containing abundant fossils. Fol- lowed to the north into Canada, these deposits change into sands and muds to a considerable extent, showing that a land area which supplied this land wash must have existed in that direction. How much of the present northern Adirondack region was over- spread by the Chazy sea can not be told, but it would seem that it must have been mainly submerged, since no land wash from it reached the present Champlain valley region. Followed to